



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,647	01/23/2009	Pieter Johannes Werkman	NL03 1399 US1	4791

24738 7590 11/21/2011
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
PO BOX 3001
BRIARCLIFF MANOR, NY 10510-8001

EXAMINER

STAPLETON, ERIC S

ART UNIT	PAPER NUMBER
----------	--------------

3742

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

11/21/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

vera.kublanov@philips.com
debbie.henn@philips.com
marianne.fox@philips.com

Office Action Summary	Application No. 10/579,647	Applicant(s) WERKMAN ET AL.	
	Examiner ERIC STAPLETON	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/07/2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-8 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-8 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0155303 A1 to Wielstra et al., hereinafter, "Wielstra," in view of US 2002/00027130 A1 to Miyata, hereinafter, "Miyata".

Wielstra discloses:

Regarding claim 1: a film heating element (heating element 1), comprising an aluminum substrate (substrate 2), an electrically insulating layer which is based on a sol-gel precursor (electrically insulating layer 3), and an electrically resistive layer (resistive layer 6), with the electrically insulating layer positioned between the aluminum substrate and the electrically resistive layer thereby insulating the aluminum substrate from the electrically resistive layer (Fig. 1 and para [0032]-[0033]);

Regarding claim 3: the sol-gel precursor is a hybrid sol-gel precursor comprising an organosilane compound (para [0008]);

Regarding claim 4: the organosilane compound comprises methyl-trimethoxysilane or methyl-triethoxysilane (para [0011]);

Regarding claim 5: the heating element further comprises a conductive layer in contact with the electrically resistive layer (para [0002]);

Regarding claim 6: an electrical domestic appliance (para [0022] and [0023]) comprising a heating element (heating element 1) comprising an aluminum substrate (substrate 2), an electrically insulating layer which is based on a sol-gel precursor (electrically insulating layer 3), and an electrically resistive layer (resistive layer 6), with the electrically insulating layer positioned between the aluminum substrate and the

Art Unit: 3742

electrically resistive layer thereby insulating the aluminum substrate from the electrically resistive layer (Fig. 1 and para [0032]-[0033]);

Regarding claim 7: the electrical domestic appliance comprises a (steam) iron, a hair dryer, a hair styler, a steamer and a steam cleaner, a garment cleaner, a heated ironing board, a facial steamer, a kettle, a pressurized boiler for system irons and cleaners, a coffee maker, a deep-fat fryer, a rice cooker, a sterilizer, a hot plate, a hot-pot, a grill, a space heater, a waffle iron, a toaster, an oven, or a water flow heater (para [0022] and [0023]); and

Regarding claim 8: a method of manufacturing a heating element (para [0024]), the method comprising acts of: providing an aluminum substrate (para [0025]); applying an electrically insulating layer on the substrate by a sol-gel process (para [0026] and [0033]); and applying a resistive layer (para [0027]) on top of the electrically insulating layer (para [0027]) thereby insulating the aluminum substrate from the resistive layer (Fig. 1 and para [0032]-[0033]).

Wielstra does not explicitly disclose:

an electrically resistive layer with a thickness smaller than 2 μm (as recited in claims 1, 6 and 8); and

the electrically resistive layer comprises an inorganic material (as recited in claim 2).

However, Miyata discloses:

Regarding claims 1, 6 and 8: an electrically resistive layer (para [0115]) with a thickness smaller than 2 μm (para [0090] and [0251]-[0252]); and

Regarding claim 2: the electrically resistive layer comprises an inorganic material (the inorganic adhesive agent can be part of the resistive layer) (para [0116]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wielstra as suggested and taught by Miyata in order to decrease thermal stress and increase electrical resistance (Miyata: para [0090]).

Response to Arguments

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 3742

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC STAPLETON whose telephone number is (571)270-3492. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (571) 272-4856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. S./
Examiner, Art Unit 3742
November 14, 2011

/Henry Yuen/
Supervisory Patent Examiner, Art
Unit 3742